

Quarterly Report

(Quarter 2: January 2011 – March 2011)

USAID AGRICULTURE TECHNOLOGY PROGRAM IN TURKMENISTAN

Submitted April 2011 By: Weidemann Associates, Inc. To: USAID/CAR

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PROJECT OVERVIEW

The first quarter of the Agriculture Technology Program (AgTech) saw a successful project start up, and project activities included the initial delivery of three Artificial Insemination (AI) Kits, meetings with local and international experts, and the creation of a work plan for year one of the project. The second quarter of the project has accelerated implementation of project activities to achieve the Program's two major objectives:

- 1. Improve genetics, education and organizations for private livestock producers, and
- 2. Introduce successful agribusiness practices.

As of March 31, 2011, the project estimates that \$430,885.00 has been spent of the obligated funds of \$1,090,000 (Total ceiling price is approximately \$3.3 million).



Training materials have been developed for livestock and horticulture modules and distributed to all the participants. Major activities of quarter two include implementing Training-of-Trainers (TOT) sessions in Ashgabat for Livestock Animal Health and Horticulture Plant Care, reconstructing two greenhouses in Mary and Lebap, and preparing for an AI TOT that will take place in April-May. Working with German firm Satimex, the Project has started running seed trials to identify the best products for Turkmen soil conditions. The Project is also working with local stakeholders in the Mary Velayat to create an

AI Service Center that will be completed in FYQ3 of this year. To cap the success of AI in year one, the first calves of the AI program are expected to be born in FYQ4 in the month of August.

PROJECT ACTIVITIES

GREENHOUSE RECONSTRUCTION

Greenhouses in Mary and Lebap have been completed to carry out trainings in plant care and treatment. Key improvements have been made to the heating systems, fulfilling the Program's goal to encourage the local population to renovate accordingly in an affordable manner. The Program is now able to host planned trainings in the velayats, with renovations planned for Ahal in the coming weeks. Quarter three expects to see similar renovations happening among farmers who attend the trainings to maximize the use of their greenhouses.





TOT SEMINARS

Training-of-Trainers started this quarter for both sectors. The Horticulture training sessions focused on greenhouse construction, plant care, soil care and climate control for an optimal greenhouse environment. The Livestock training sessions were designed to provide modern training in animal health practices, including the development of nutritional feed stock, which will help farmers and households manage and care for their herds more effectively in order to achieve an increased milk production and revenue. More detailed accounts are listed below.

Horticulture Training

The Program has identified demonstration greenhouse sites and participants for training in greenhouse construction, soil management and plant care. The TOT on greenhouse construction, soil management and plant care training kicked off on February 25-27, 2011 in Ashgabat. The Program's first TOT participants included nine (9) private farmers from the Ahal, Mary, Lebap and the Balkan velayats. The training used three (3) instructors, with additional support from Deputy Chief of the Credit Department of "Dayhanbank", Gurban Charyev, Program

The Project has developed data collection sheets to gather information from training participants. This information will serve to populate an M&E training database for collecting baseline data and reporting on key PMEP indicators.

Agribusiness Specialist Murad Nobatov and Program M&E Manager, Zulya Achilova. The horticulture component trainings will be delivered by the newly trained trainers in their respective velayats, focusing on greenhouse horticulture production to increase local farmers' knowledge of improved seed varieties, plant disease and treatment, and advanced soil management techniques.

Two post survey questionnaires were conducted to obtain participants' opinions regarding the quality of training. The

participants assessed the quality of instruction as "Very good" for instructors: Murad Nobatov (greenhouse construction), Oraz Soyunov (plant disease and treatment) and Gurban Charyev (agricultural finance); Lecturers Maral Annanurova and Begnazar Rahmanov were overall assessed as "Good". The second set of questionnaires dealt with the participants' ability to hold trainings in other velayats:

- Two (2) of the participants answered that they felt they would
 - not be able to conduct seminars on "Greenhouse construction"
- One (1) felt uncomfortable about conducting the "Soil management" seminar



Next Step:

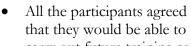
April will mark the beginning of the greenhouse velayat trainings, starting in the Mary velayat, with two experts on plant disease and disease prevention, covering products like tomatoes, potatoes, cabbage and cucumbers.

- Four (4) participants thought that they were not able to conduct seminars on "plant care, pest control"
- Two (2) participants felt they were not able to conduct seminars on "Agro-technics"
- Four (4) participants were not able to conduct seminars on "Seeds of vegetables and certifications of vegetables".

In light of these results, there are a few participants that will require assistance from the specialists to conduct seminars in other velayats and other trainings may need to take place as follow up activities.

Livestock and AI Training

The Animal Health Improvement TOT on herd management, feed improvement and health care was kicked off for five days in Ashgabat, March 25-29. A total of 10 participants attended from Ashgabat, Mary, Lebap, Balkan, Akhal and Dashoguz regions.





- carry out future training sessions in the different velayats.
 Out of the ten (10) participants, seven (7) decided that they could
- conduct seminars on herd management on 100 head of cattle.
 For Planning of heads and selection of breed only four (4) said they would require a specialist assisting all top participants.
- For Planning of heads and selection of breed only four (4) said they would require a specialist assisting; all ten participants agreed that they would be able to conduct training on preventive measures against diseases of livestock
- Nine (9) of the ten agreed they were able to conduct seminars without specialist on veterinarian measures on disinfection of

livestock farms and veterinarian medicines and their usage.

• 50% of the participants felt confident about conducting seminars on planning of feed, requirements for keeping cattle in fodder and planning feed base for livestock, developing feed rations in accordance with requirements depending on the cattle's age groups.

With the aid of the initial three AI Kits, at least 56 cows, mostly of the Mon billiard breed, have been successfully inseminated in Mary velayat by three local veterinarians. This represents a 75% success rate. The first calf is expected on or around August 20th.

SUCCESSES

Artificial Insemination (AI) Kits

The success of the AI kits sent in December led to the program deciding to send 10 additional AI kits as equipment for the AI TOT training in Ahal planned for April 11 – May 27. A local AI breeding expert, Ms. Katya Chichnyaeva, will lead the

Next Step:

Further training are planned to address the significance of balanced feed for disease prevention purposes, treatment and how to increase animal resistance.

Next Step:

Meet with a feed mill expert on feed input and investment options. The program envisions combining efforts of local and an international feed expert to produce and ideal feed mix that is cost effective to produce and affordable for local farmers to purchase.

technical and theoretical training, including demonstrating best practices for conducting AI and assessing animal conditions. A shipment of 350 Brown Swiss and 350 Holstein doses of semen arrived in February for this AI training to kick off as planned. The 8-week TOT will provide veterinarians the much needed opportunity for hands-on, practical experience in AI techniques. The 10 AI Kits will be distributed during the TOT training.

Breaking Trade Barriers

Although not a discreet project objective, it is worth noting this indirect success of the AgTech project. By importing bull semen from the U.S., the team broke through a trade barrier that had previously prevented U.S. semen providers from working in Turkmenistan. While Turkmen farmers had previously bought semen from Turkey, Russia and Ukraine for AI services, few doses if any were certified from progeny tested sires. Using the U.S.-based AI services companies American Breeders Services (ABS) and World Wide Sires, the project was able to get semen tested for the conditions necessary to produce disease resistant, high quality milk-producing cows. By sending the doses in a vapor tank, the project was able to import the semen without the shipment having a dangerous goods label, thus reducing complications with customs upon entry. The project has made note of all processes and procedures for importers in the livestock industry to easily replicate this process in the future.

Chevron Presentation

On March 17, the USAID representatives and the Program's COP, Jason Bohoney, met with Chevron to introduce project objectives and provide information about project development needs including, pilot export promotion program. Chevron has expressed its interest in providing funding and would like to discuss further arrangements and opportunities. The project will continue to explore opportunities in Q3.

Training Materials

In anticipation of reaching a wide range of farmer communities throughout the five velayats, the program has initiated a strategy for extending basic horticultural and AI knowledge via the production of brochures and small booklets in the native Turkmen language. A booklet prototype has been created for the AI TOT training, with visuals and detailed instructions for AI service providers. These booklets will be distributed during future training seminars as well. The Program sees this as an opportunity to maximize impact with knowledge resources that can be spread throughout the country at a cost that fits within the allowable budget.

The instruction booklet initiative will not only provide portable information for AI and horticulture, but it will also offer suggestions for affordable and accessible treatments for plant and animal diseases. The project is also looking into developing a larger agro-technics handbook

Next Step:

Following the AI TOT, the Project will reevaluate the best breeds to continue using for AI purposes. Based on the results of this review among local and international specialists, an additional 2,000 doses will be procured for continuation of AI trainings in the velayats.

Next Step:

The project plans to continue an open dialogue and meet with Chevron to formulate a tentative agreement regarding additional funds to support common agriculture goals.

in Turkmen for local farmers to use as a reference for all topics that will be covered in the various project trainings. This concept is in response to initial indications that reliable information in Turkmen on the subject matters in not available.

PROGRAM DEVELOPMENT

Feed Trials Pilot Program

The project developed a scope of work for an international expert to develop an economically viable feed mix based on local inputs for farmers to use to improve milk production. The livestock feed formula will be developed this spring and production will be conducted through pilot trials this spring and summer using the facilities of a feed mill in Ashgabat affiliated with the Union of Entrepreneurs.

Storage and Transport for AI

Better quality Dewar flasks are necessary for storing and transporting Semen. Current flasks have a capacity to store semen for less than one month, requiring a refill of nitrogen 1-2 times a month, which puts a strain on the distribution chain for liquid nitrogen in and around the velayats. Small grants may be used to support this initiative for veterinarians trained in AI services.

Construction of AI Service Center

The Project has identified a site for the AI Service Center in Mary, which will act as a research facility for evaluating and sourcing progeny-tested semen to ensure genetic quality of the sires. The project envisions that necessary laboratory equipment will be acquired and delivered through the Agriculture Technology Grants provisions. A memorandum of understanding (MOU) has been signed between Mr. Batyr Begliyev, who is a licensed private veterinarian, and Weidemann Associates, Inc. Mr. Bagliyev, with the support of entrepreneur and veterinarian Mr. Dovlet Eminov, plans to invest about \$18,000 to create this AI Service Center. Likewise, the project is reviewing costs for laboratory equipment for the center and plans to award a grant in the months ahead.

FYQ3 APR-JUN ACTIVITY PLAN

ACTIVITY	DESCRIPTION	Apr	May	Jun
AI TOT	At least 10 trainees (2 from each velayat)	11 th -	– 27 th	
	to learn advanced techniques in AI to be			
	trainers and AI service providers			
Al Service Center	Construction of AI Service Center in Mary	$1^{st} - 30^{th}$		
	Velayat			
	Equipping of AI Service Center		1 st	- 30 th
	Lab Consultant on Using Equipment			15 th – 30 th
Herd Management	Each TOT participant will conduct			
Training	trainings in the velayats on animal health		TBD*	
	and farm management for livestock			
Feed Trials	International feed specialist to provide		12 th – 24 th	
	input and create a model feed trial plan			
	Begin feed trials			TBD**

Greenhouse Training	Program to train local farmers on greenhouse management, soil care, and					
Program	plan disease identification and treatment					
	Mary Velayat	3 rd -4 th	1 st -2 nd	5 th -6 th		
	Lebap Velayat	16 th -17 th	14 TH -15 TH	16 TH -17 TH		
	Akhal Velayat	23 RD -24 TH	21 ST -22 ND	25 TH -26 TH		

^{*} These dates are dependent on available meeting space and approval from local Hakim Leagues to use such buildings for the trainings.

MONITORING & EVALUATION UPDATE

Training Database Development

The project has developed M&E tools to collect information from training participants. This will serve as the foundation for development of a database to use to report on key PMEP indicators and other baseline information that may be useful to USAID. In order to maximize resources, the project is training the trainers on the data collection processes and may use other human resources where available to save on time and local travel expenses for the project managers.

PMEP Progress

The project is still in its early phase of implementation, but results are beginning to come in regarding the Project Monitoring & Evaluation Plan indicators. Once significant outcome indicator results are compiled, future quarterly reports will add a graphic update on these figures. As of March 31, the project has conducted TOTs to train 21 trainers thus far, who will lead velayat trainings to meet the project's year 1 goal of training 500 farmers in livestock and horticulture. From these 500 farmers and other stakeholders, we expect 300 to adopt new techniques and management practices. Baseline data for quantity of goods sold is being collected as we identify farmers, and the value for milk and horticulture products on the local market has been established. Five input providers have been strengthened through project interventions, many more identified, and with the construction of two demo greenhouses and trainings planned, our year 1 target of improving 50 greenhouses is underway.



^{**} After developing the plan, implementation of the trials will depend on how fast the project can acquire enough inputs, create the feed and disperse among animals at participating farms.